

Product datasheet for **RC204232**

BTN2A2 (NM_006995) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	BTN2A2 (NM_006995) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	BTN2A2
Synonyms:	BT2.2; BTF2; BTN2.2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC204232 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAACCAGCTGCTGCTCTGCACTTCTCCCTGCCAGCCTCCCTCCTCCTCCTGCTCCTCCTCCTC
 TCAGCCTGTGTGCACTGGTCTCAGCCCAGTTTACTGTCGTGGGGCCAGCTAATCCCATCCTGGCCATGGT
 GGGAGAAAAACACTACATTACGCTGCCATCTGTACCCGAGAAAAATGCTGAGGACATGGAGGTGCGGTGG
 TTCCGGTCTCAGTTCTCCCCGAGTGTTGTGTATAAGGGTGGGAGAGAGAGAACAGAGGAGCAGATGG
 AGGAGTACCGGGGAAGAATCACCTTTGTGAGCAAAGACATCAACAGGGGCAGCGTGGCCCTGGTCATACA
 TAACGTCACAGCCAGGAGAATGGGATCTACCGCTGTTACTTCCAAGAAGGCAGGTCTACGATGAGGCC
 ATCCTACGCCCTGTTGGTGGCAGGCCTTGGGTCTAAGCCCTCATTGAAATCAAGGCCAAGAGGATGGGA
 GCATCTGGCTGGAGTGCATATCTGGAGGGTGGTACCCAGAGCCCCTCACAGTGTGGAGGGACCCCTACGG
 TGAGGTTGTGCCGCCCTGAAGGAGTTTCCATCGCTGATGCTGACGGCCTTTCATGGTACCACAGCT
 GTGATCATCAGAGACAAGTATGTGAGGAATGTGTCCTGCTCTGTCAACAACACCCCTGCTCGGCCAGGAGA
 AGGAAACTGTCATTTTTATTCCAGAATCCTTTATGCCAGCGCATCTCCCTGGATGGTGGCCCTAGCTGT
 CATCCTGACCGCATCTCCCTGGATGGTGTCCATGACTGTCATCCTGGCTGTTTTTCATCATCTTCATGGCT
 GTCAGCATCTGTTGCATCAAGAACTTCAAAGGAAAAAAGATTCTGTCAGGGGAAAAGAAAGTTGAAC
 AAGAGGAAAAAGAAATTCACAGCAACTTCAAGAAGAATTGCGATGGAGAAGAACATTCTTACATGCTGC
 TGATGTGGTCTGGATCCAGACACCGCTCATCCGAGCTTCTCTGTGAGGACCGGAGAAGTGTGAGG
 CGGGGCCCTACAGGCAGAGAGTGCCTGACAACCCAGAGAGATTGACAGTCAGCCTTGTGCTGGGAT
 GGGAGAGCTTCGCCTCAGGAAACATTACTGGAGGTGGAGGTGGAAAACGTGATGGTGTGGACTGGGG
 GGTCTGCAGACACAGTGTGAGAGGAAAGGGGAGGTCTGCTGATTCTCAGAATGGCTTCTGGACCCTG
 GAGATGTTTGAACAACATACCGGCCCTGTCTCCCTGAGAGGATTCTCCCTTGAAGGAGTCCCTTT
 GCCGGTGGGCGTCTTCTGGACTATGAAGCTGGAGATGTCTCCTTCTACAACATGAGGGACAGATCGCA
 CATCTACACATGTCCCGTTTACGCTTTACTGTGCCTGTGAGGCCCTTCTCAGGTTAGGGTCTGATGAC
 AGCCCCATCTTCTGCTGCACTCACAGGAGCCAGTGGGGTTCATGGTGCCTGAAGAGGGCCTGAAAC
 TTCACAGAGTGGGACCCACCAGAGCCTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC204232 protein sequence
 Red=Cloning site Green=Tags(s)

MEPAAALHFSLPASLLLLLLLLLLLLSLCALVSAQFTVVGPNPILAMVGENTTLRCHLSPEKNAEDMEVRW
 FRSQFSPAVFVYKGGRETEEQMEEYRGRITFVSKDINRGSVALVIHNVTAEQENIYRCYFQEGRSYDEA
 ILRLVVAGLGSKPLIEIKAQEDGSIWLECSGGWYPEPLTVWRDPYGEVVPALKEVSIADADGLFMVTTA
 VIIRDKYVRNVSCSVNNTLLGQEKETVIFIPESFMPSPWVALAVILTASPWMSMTVILAVFIIFMA
 VSICCIKKLQREKKILSGEKKVEQEEKEIAQQLQEELRWRRTFLHAADVLDPDTAHPFLSEDRRSVR
 RGPYRQVDPNPERFDSQPCVLGWESFASGKHYWEVEVENVMVWTVGVCRRHSVERKGEVLLIPQNGFWTL
 EMFGNQYRALSSPERILPLKESLCRVGVFLDYEAGDVSFYNMRRDRSHIYTCPRSAFTVPVRRPFFRLGSD
 SPIFICPALTGASGVMVPEEGLKLRVGHQSL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6432_g01.zip

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_006995

ORF Size: 1569 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_006995.5](#)

RefSeq Size: 3602 bp

RefSeq ORF: 1572 bp

Locus ID: 10385

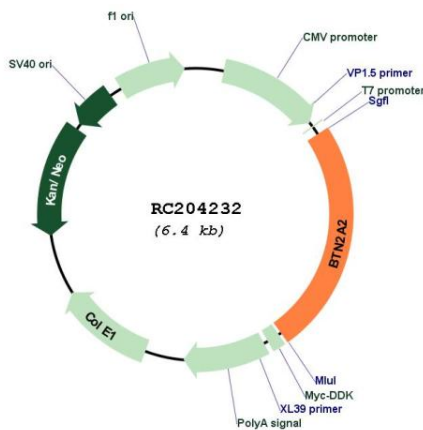
UniProt ID: [Q8WVV5](#)

Cytogenetics: 6p22.2

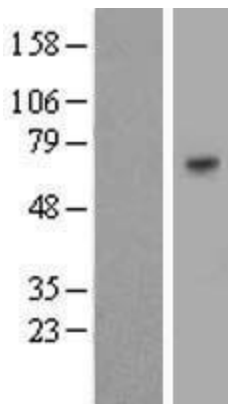
Domains: IGv, IG, SPRY, PRY
Protein Families: Druggable Genome, Transmembrane
MW: 59.1 kDa

Gene Summary: Butyrophilin is the major protein associated with fat droplets in the milk. This gene is a member of the BTN2 subfamily of genes, which encode proteins belonging to the butyrophilin protein family. The gene is located in a cluster on chromosome 6, consisting of seven genes belonging to the expanding B7/butyrophilin-like group, a subset of the immunoglobulin gene superfamily. The encoded protein is a type I receptor glycoprotein involved in lipid, fatty-acid and sterol metabolism. Several alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2010]

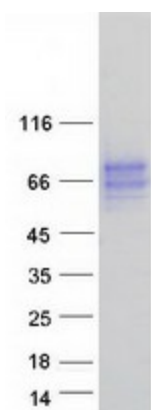
Product images:



Circular map for RC204232



Western blot validation of overexpression lysate (Cat# [LY416278]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204232 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified BTN2A2 protein (Cat# [TP304232]). The protein was produced from HEK293T cells transfected with BTN2A2 cDNA clone (Cat# RC204232) using MegaTran 2.0 (Cat# [TT210002]).